

CLAIMS

What is claimed is:

1. A method for creating a voice response grammar in a voice response server,
the method comprising:

5 identifying presentation documents for a presentation, each presentation
document having a presentation grammar; and

storing each presentation grammar in a voice response grammar on a voice
response server.
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2. The method of claim 1 wherein identifying presentation documents for a
presentation comprises:

creating a data structure representing a presentation; and
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listing at least one presentation document in the data structure representing a
presentation.
3. The method of claim 2 wherein:

listing the at least one presentation document includes storing a location of
the presentation document in the data structure representing a presentation;
5 and

storing each presentation grammar includes retrieving a presentation
grammar of the presentation document in dependence upon the location of
the presentation document.
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4. The method of claim 3 wherein:

the presentation document comprises a file in a file system on a content server;

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the file has a location identified by a pathname;

storing a location of the presentation document in the data structure representing a presentation includes storing the pathname and a network location of the content server; and

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retrieving a presentation grammar includes:

retrieving the presentation document from the content server in dependence upon the pathname; and

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extracting the grammar from the presentation document.

5. The method of claim 3 wherein:

the presentation document comprises an instance of an object oriented class on a content server, the presentation document having a presentation document name;

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the presentation grammar comprises a member data element of the instance;

storing a location of the presentation document in the data structure representing a presentation includes storing the presentation document name and a network location of the content server; and

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retrieving a presentation grammar further comprises:

15 requesting the presentation grammar from the content server, including
communicating the presentation document name as a request parameter; and

receiving the presentation grammar in response from the content server.

6. The method of claim 3 wherein:

the presentation document comprises a record in a table in a database on a
content server, the presentation document having a presentation document
5 identifier;

the presentation grammar comprises a field in the record;

storing a location of the presentation document in the data structure
10 representing a presentation includes storing the presentation document
identifier and a network location of the content server; and

retrieving a presentation grammar further comprises:

15 requesting the presentation grammar from the content server, including
communicating the presentation document name as a request parameter; and

receiving the presentation grammar in response from the content server.

7. The method of claim 1 further comprising creating a presentation document,
including:

creating, in dependence upon an original document, a structured document
5 comprising one or more structural elements;

classifying a structural element of the structured document according to a presentation attribute; and

10 creating a presentation grammar for the structured document, wherein the presentation grammar for the structured document includes grammar elements each of which includes an identifier for at least one structural element of the structured document.

8. The method of claim 7 wherein classifying a structural element comprises:

identifying a presentation attribute for the structural element;

5 identifying a classification identifier in dependence upon the presentation attribute; and

inserting the classification identifier in association with the structural element in the structured document.

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9. The method of claim 7 wherein creating a presentation grammar for the structured document comprises:

identifying the content type of the original document;

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selecting, in dependence upon the content type, a full presentation grammar from among a multiplicity of full presentation grammars; and

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filtering the full presentation grammar into a presentation grammar for the structured document in dependence upon the structural elements of the structured document.

10. A system for creating a voice response grammar in a voice response server,
the system comprising:

5 means for identifying presentation documents for a presentation, each
presentation document having a presentation grammar;

means for storing each presentation grammar in a voice response grammar on
a voice response server.

11. The system of claim 10 wherein means for identifying presentation
documents for a presentation comprises:

5 means for creating a data structure representing a presentation; and

means for listing at least one presentation document in the data structure
representing a presentation.

12. The system of claim 11 wherein:

5 means for listing the at least one presentation document includes means for
storing a location of the presentation document in the data structure
representing a presentation; and

10 means for storing each presentation grammar includes means for retrieving a
presentation grammar of the presentation document in dependence upon the
location of the presentation document.

13. The system of claim 12 wherein:

the presentation document comprises a file in a file system on a content
server;

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the file has a location identified by a pathname;

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means for storing a location of the presentation document in the data structure representing a presentation includes means for storing the pathname and a network location of the content server; and

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means for retrieving a presentation grammar includes:

means for retrieving the presentation document from the content server in dependence upon the pathname; and

means for extracting the grammar from the presentation document.

14. The system of claim 12 wherein:

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the presentation document comprises an instance of an object oriented class on a content server, the presentation document having a presentation document name;

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the presentation grammar comprises a member data element of the instance;

means for storing a location of the presentation document in the data structure representing a presentation includes means for storing the presentation document name and a network location of the content server; and

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means for retrieving a presentation grammar further comprises:

means for requesting the presentation grammar from the content server, including means for communicating the presentation document name as a

request parameter; and

20 means for receiving the presentation grammar in response from the content server.

15. The system of claim 12 wherein:

the presentation document comprises a record in a table in a database on a content server, the presentation document having a presentation document
5 identifier;

the presentation grammar comprises a field in the record;

means for storing a location of the presentation document in the data
10 structure representing a presentation includes means for storing the presentation document identifier and a network location of the content server; and

means for retrieving a presentation grammar further comprises:

15 means for requesting the presentation grammar from the content server, including means for communicating the presentation document name as a request parameter; and

20 means for receiving the presentation grammar in response from the content server.

16. The system of claim 10 further comprising means for creating a presentation document, including:

means for creating, in dependence upon an original document, a structured

- 5 document comprising one or more structural elements;
- means for classifying a structural element of the structured document according to a presentation attribute; and
- 10 means for creating a presentation grammar for the structured document, wherein the presentation grammar for the structured document includes grammar elements each of which includes an identifier for at least one structural element of the structured document.
17. The system of claim 16 wherein means for classifying a structural element comprises:
- means for identifying a presentation attribute for the structural element;
- 5 means for identifying a classification identifier in dependence upon the presentation attribute; and
- means for inserting the classification identifier in association with the
- 10 structural element in the structured document.
18. The system of claim 16 wherein means for creating a presentation grammar for the structured document comprises:
- means for identifying the content type of the original document;
- 5 means for selecting, in dependence upon the content type, a full presentation grammar from among a multiplicity of full presentation grammars; and
- means for filtering the full presentation grammar into a presentation grammar
- 10 for the structured document in dependence upon the structural elements of the

structured document.

19. A computer program product for creating a voice response grammar in a voice response server, the computer program product comprising:

5 a recording medium;

means, recorded on the recording medium, for identifying presentation documents for a presentation, each presentation document having a presentation grammar;

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means, recorded on the recording medium, for storing each presentation grammar in a voice response grammar on a voice response server.

20. The computer program product of claim 19 wherein means, recorded on the recording medium, for identifying presentation documents for a presentation comprises:

5 means, recorded on the recording medium, for creating a data structure representing a presentation; and

means, recorded on the recording medium, for listing at least one presentation document in the data structure representing a presentation.

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21. The computer program product of claim 20 wherein:

means, recorded on the recording medium, for listing the at least one presentation document includes means, recorded on the recording medium,
5 for storing a location of the presentation document in the data structure representing a presentation; and

means, recorded on the recording medium, for storing each presentation

10 grammar includes means, recorded on the recording medium, for retrieving a presentation grammar of the presentation document in dependence upon the location of the presentation document.

22. The computer program product of claim 21 wherein:

5 the presentation document comprises a file in a file computer program product on a content server;

the file has a location identified by a pathname;

10 means, recorded on the recording medium, for storing a location of the presentation document in the data structure representing a presentation includes means, recorded on the recording medium, for storing the pathname and a network location of the content server; and

15 means, recorded on the recording medium, for retrieving a presentation grammar includes:

means, recorded on the recording medium, for retrieving the presentation document from the content server in dependence upon the pathname; and

20 means, recorded on the recording medium, for extracting the grammar from the presentation document.

23. The computer program product of claim 21 wherein:

5 the presentation document comprises an instance of an object oriented class on a content server, the presentation document having a presentation document name;

the presentation grammar comprises a member data element of the instance;

10 means, recorded on the recording medium, for storing a location of the presentation document in the data structure representing a presentation includes means, recorded on the recording medium, for storing the presentation document name and a network location of the content server; and

15 means, recorded on the recording medium, for retrieving a presentation grammar further comprises:

20 means, recorded on the recording medium, for requesting the presentation grammar from the content server, including means, recorded on the recording medium, for communicating the presentation document name as a request parameter; and

means, recorded on the recording medium, for receiving the presentation grammar in response from the content server.

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24. The computer program product of claim 21 wherein:

5 the presentation document comprises a record in a table in a database on a content server, the presentation document having a presentation document identifier;

the presentation grammar comprises a field in the record;

10 means, recorded on the recording medium, for storing a location of the presentation document in the data structure representing a presentation includes means, recorded on the recording medium, for storing the presentation document identifier and a network location of the content server;

and

15 means, recorded on the recording medium, for retrieving a presentation grammar further comprises:

means, recorded on the recording medium, for requesting the presentation grammar from the content server, including means, recorded on the recording
20 medium, for communicating the presentation document name as a request parameter; and

means, recorded on the recording medium, for receiving the presentation grammar in response from the content server.

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25. The computer program product of claim 19 further comprising means, recorded on the recording medium, for creating a presentation document, including:

5 means, recorded on the recording medium, for creating, in dependence upon an original document, a structured document comprising one or more structural elements;

10 means, recorded on the recording medium, for classifying a structural element of the structured document according to a presentation attribute; and

means, recorded on the recording medium, for creating a presentation grammar for the structured document, wherein the presentation grammar for the structured document includes grammar elements each of which includes
15 an identifier for at least one structural element of the structured document.

26. The computer program product of claim 25 wherein means, recorded on the recording medium, for classifying a structural element comprises:

5 means, recorded on the recording medium, for identifying a presentation attribute for the structural element;

means, recorded on the recording medium, for identifying a classification identifier in dependence upon the presentation attribute; and

10 means, recorded on the recording medium, for inserting the classification identifier in association with the structural element in the structured document.

27. The computer program product of claim 25 wherein means, recorded on the recording medium, for creating a presentation grammar for the structured document comprises:

5 means, recorded on the recording medium, for identifying the content type of the original document;

10 means, recorded on the recording medium, for selecting, in dependence upon the content type, a full presentation grammar from among a multiplicity of full presentation grammars; and

means, recorded on the recording medium, for filtering the full presentation grammar into a presentation grammar for the structured document in dependence upon the structural elements of the structured document.